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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/068,616

02/05/2002

Joel R. Goergen

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7590

11/10/2005

James E. Harris  
Haynes and Boone LLP  
Suite 3100  
901 Main Street  
Dallas, TX 75202-3789

EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2668

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/068,616	Applicant(s) GOERGEN ET AL.	
	Examiner PHUC H. TRAN	Art Unit 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-20 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/23/02; 2/7/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

\* In claim 1 lines 2 and 7, the terms “capable of” is not positive limitations recited in the claim because it has been held that the recitation that an element is “capable of” performing a function is not a positive limitation but only requires the ability to so perform. It is suggested applicant remove the term.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re*

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Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8-19 of copending Application No. 10/068,418. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following formalities:

For claims 1-20, the claims 8-19 of the copending application serial number 10/068418 disclose a system/method comprising

a first plurality of packet input/output cards, each having a first backplane electrical connector set to receive and transmit packet data signaling, and a second backplane electrical connector set to receive electrical power;

a second plurality of switch fabric cards, each having a first backplane electrical connector set to receive and transmit packet data signaling, and a second backplane electrical connector set to receive electrical power;

and a single electrical backplane having slots capable of mating with the backplane electrical connector sets of the first and second pluralities of cards, the backplane having multiple high-speed signaling layers, each embedded between a pair of ground planes, the high-speed signaling layers comprising electrical differential trace pairs connecting the slots corresponding to the first backplane electrical connector sets of the first card plurality to the slots corresponding to the first backplane electrical connector sets of the second card plurality, and at least two power planes embedded between the high-speed signaling layers and isolated from the high-speed signaling layers by ground planes, the power planes connected to the second backplane electrical connector sets of the first and second card pluralities and rated to distribute at least 5000 Watts of power to the card pluralities;

wherein the high-speed signaling layer electrical traces, taken together, are capable of supporting packet data signaling across the backplane at a combined rate of at least 500 Gigabits/second;

wherein the high-speed signaling layer electrical traces, taken together, are capable of supporting packet data signaling across the backplane at a combined rate of at least 1000 Gigabits/second;

wherein the at least two power planes comprise first and second supply planes and first and second return planes all separated by layers of dielectric material, the first and second supply planes adjacent, the first return plane adjacent the first supply plane, and the second return plane

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adjacent the second supply plane, the router further comprising first and second power supplies coupled to the backplane, the first power supply electrically connected to the first supply and return planes, the second power supply electrically connected to the second supply and return planes;

wherein the power planes each have a thickness at least three times the thickness of the electrical traces and ground planes;

wherein the backplane further comprises at least two low-speed signaling layers, the low-speed signaling layers interposed between the high-speed signaling layers and the power planes;

wherein the slots for the packet input/output cards are arranged in a first rank on the backplane, the slots for the switch fabric cards are arranged in a second rank on the backplane, and the first and second ranks are spaced apart such that, on the power planes, the space between the first and second ranks can be used as a primary power distribution path;

wherein the first power supply couples to the backplane adjacent one end of the second rank of slots, and wherein the second power supply couples to the backplane adjacent the opposite end of the second rank of slots;

further comprising a forced air unit capable of enhancing air flow across the packet input/output cards and the switch fabric cards, the forced air unit electrically connected to the backplane at forced air power connectors and receiving power through the power planes;

wherein the power planes comprise patterned isolation features adjacent the forced air power connectors, the isolation features increasing the resistance of a power path passing the forced air power connectors; each power plane comprising a conductive guard ring adjacent the edges of the backplane and electrically direct-current isolated from the center conductive area of

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that power plane; and having a chassis ground, wherein each conductive guard ring is connected to chassis ground.

NOTE: SEE CLAIMS 8-19 OF THE COPENDING APPLICATION

Applicant's claims 1-20 merely broaden the scope of the claims 8-19 of the copending application serial number 10/068418 by eliminating the terms "at least two power planes embedded between the high-speed signaling layers and isolated from the high-speed signaling layers by ground planes, the power planes connected to the second backplane electrical connector sets of the first and second card pluralities and rated to distribute at least 5000 Watts of power to the card pluralities" from claim 1 of the copending application. It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. In re karlson, 136 USPQ 184 (CCPA). Also note Ex Parte Raine, 168 USPQ 375 (bd. App. 1969); omission of a reference element whose function is not need would be obvious to one skilled in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goergen (6,822,876) is cited to show a system, which is considered pertinent to the claimed invention.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran  
Assistant Examiner  
Art Unit 2664

P.t  
11/8/05



DANG TON  
PRIMARY EXAMINER